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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,757	12/08/2003	Jae Ho Yang	DKC 1720.01	4288

7590 02/06/2006

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EXAMINER
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BUTTNER, DAVID J

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/731,757

Applicant(s)

YANG ET AL.

Examiner

David Buttner

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-13 and 16-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-13,16-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☒ Certified copies of the priority documents have been received in Application No. 09-997781.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1712

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim depends on a cancelled claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuka '122 in view of Morgan '909.

Ohtsuka exemplifies (table 1) a blend of polycarbonate, thermosetting epoxy and titanium dioxide. The thermosetting epoxy is an epoxy novolac (col 2 line 27) which qualifies as applicant's phenol resin (page 5 line 4-5). Ohtsuka suggests inclusion of flame retardants (col 2 line 58) but not applicant's specific morpholide flame retardant (C).

Morgan discloses a number of flame retardants for polycarbonates (col 14 line 53), epoxies (col 15 line 31) and phenol-aldehydes (col 16 line 35). One such flame retardant is a morpholide phosphorous ester (example 3). It would have been prima facie obvious to use any flame retardant in Ohtsuka's composition for the expected results.

Art Unit: 1712

Claims 1-3,6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Helmond '390 in view of Morgan '909.

Helmond (abstract) suggests blends of polyester , epoxy novolac and glass fibers. Helmond suggests inclusion of flame retardants (col 6 line 51-54) but not applicant's specific morpholide flame retardant (C).

Morgan discloses a number of flame retardants for polyesters (col 15 line 61), epoxies (col 15 line 31) and phenol-aldehydes (col 16 line 35). One such flame retardant is a morpholide phosphorous ester (example 3). It would have been prima facie obvious to use any flame retardant in Helmond's composition for the expected results.

The examiner relies on 2004/0192814 and US 2004/0198877 to determine the subject matter supported by the claimed PCT parent applications.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3,6-13 and 16-26 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19

Art Unit: 1712

of copending Application No. 10-480180. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application also claims blends of thermoplastic, PPE, phenolic resin and a phosphorous compound. The copending application is broader in the sense that any phosphorous compound is permitted rather than phosphorous ester morpholides. It is clear that the copending application's claims are intended to encompass morpholides (paragraph 39).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-3,6-13 and 16-26 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10-480056. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application also claims blends of thermoplastic, phenolic resin and a phosphorous compound. The copending application is broader in the sense that any phosphorous compound is permitted rather than phosphorous ester morpholides. It is clear that the copending application's claims are intended to encompass morpholides (paragraph 36).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed 12/9/05 have been fully considered but they are not persuasive.

Art Unit: 1712

Applicant argues Ohtsuka's epoxy is thermosetting due to the combination of the novolac epoxy and phenol formaldehyde rather than the thermoplastic of applicant's claims.

This is not convincing. Applicant's claims do not require the phenol resin derivative (B) to be thermoplastic. The composition as a whole is thermoplastic. Small amounts of a thermoset (B) would still permit the composition as a whole to have melt flowability. Note that applicant allows for nonthermoplastic additives such as silica and mica (claim 16) to be added while maintaining overall thermoplasticity.

Applicant is mischaracterizing the reference anyway. A combination of ortho-cresol novolac epoxy with phenol-formaldehyde resin is NOT called for by Ohtsuka. This is clear from column 1 line 51 where the thermosetting epoxy and thermosetting phenolic resins are alternatives to each other. Also note table I's use of the two alternatively. Finally, applicant's premise that O-cresol novolac epoxy somehow thermoplastic when used by applicant (page 5 line 4 of spec), but thermosetting when used in the references is spurious. Both applicant and the reference are combining the same materials (excluding the nonreactant flame retardant).

Applicant argues Morgan suggests his morpholide flame retardant is useful for his long list of individual polymers – not blends thereof.

The examiner does not agree. A nonreactant additive such as a flame retardant that is useful in polymers individually would be expected to be effective for blends of said polymers also. One of ordinary skill would draw such a conclusion in the absence of any contrary evidence.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on weekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

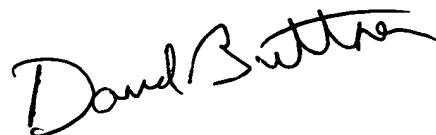
Art Unit: 1712

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Buttner

DAVID J. BUTTNER  
PRIMARY EXAMINER

2/1/06

A handwritten signature in black ink that reads "David Buttner". The signature is written in a cursive style with a large, stylized "D" and a long, sweeping underline.